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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,071	11/30/2000	Charles David Johnson	IBMN.011US01 (0517)	2728
7590 10/20/2005 Chambliss, Bahner & Stophel, P.C. 1000 Tallan Building Two Union Square Chattanooga, TN 37402			EXAMINER DIVINE, LUCAS	
			ART UNIT 2624	PAPER NUMBER

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/727,071

Applicant(s)

JOHNSON, CHARLES DAVID

Examiner

Lucas Divine

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/26/05 has been entered.

### *Response to Amendment*

2. Claims 1 – 18 and 20- 29 are pending.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 7, 12 – 18, 20 – 22, and 24 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bain et al. (US 5287434) in view of Ota Naoki (JP 08-221227) hereafter as Bain and Ota.

Regarding claim 1, Bain teaches a method for processing print jobs on a printing device (14, Fig. 1) having at least one named print queue (Q1, Q2 etc., Fig. 1) and a residual print queue (history queue, col. 7 lines 60-65, col. 15 lines 45-54) comprising:

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**receiving print jobs** (print jobs received from host 15 to personal computer 14, col. 3 lines 46-48; col. 5 line 8);

**forwarding print jobs having a print queue designation that matches a named print queue in the printing device to the designated print queue** (forwarding in step 92, testing to see if the named queue designation in the print job has an associated queue in step 80, see also their associated descriptions; col. 6 line 67 – destination queue name [col. 4 line 56, col. 6 line 59], and throughout is a discussion of the named queues, even letting the user rename them [col. 5 lines 51-52]);

**forwarding print jobs having a print queue designation that does not match a named print queue in the printing device to the residual print queue** (col. 15 lines 45-54, wherein jobs are posted to the history queue when the queue designation can't locate the designated named queue); and

**forwarding print jobs from the residual print queue to a print engine for printing** (col. 8 lines 40-60, wherein jobs in the history queue can be re-submitted to the system and forwarded from the history queue to another queue and thus to a print engine [e.g. printers of Fig. 1] for printing).

Even though it seems obvious that a job can be restored from the history queue for printing, thus allowing old jobs, jobs that had been canceled, jobs that didn't have a correct queue name, as well as other examples of items going into the history queue, to be printed. This seems to be one of the clear functions of the restore routine. Nevertheless, since Bain does not specifically (only suggests) teach restoring jobs and being able to print jobs from the history

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queue, Ota is relied upon to show in exact detail that it is well known in the art to be able to restore and print jobs in a history queue.

Ota teaches the ability to forward print jobs from a history queue to a print engine (see abstract and throughout – *Examiner's note: it appears that the machine translation didn't translate history queue 6 correctly and accidentally put hysteresis queue, if applicant wishes to receive a full translation, please indicate so in next response to Office and it will be provided*).

It would have been obvious to one of ordinary skill in the art that a user would have the ability to print jobs in a history queue as clearly taught in Ota and suggested in Bain. The motivations for doing so are discussed above and include the basic idea of being able to print things that weren't able to print the first time or reprint things again.

Regarding claim 2, which depends from claim 1, Bain teaches **printing a print job forwarded to a named print queue in the printing device** (e.g. col. 5 lines 23-24 and throughout).

Regarding claim 3, which depends from claim 1, Bain teaches **converting a print queue designation of a print job having a print queue designation that does not match a named print queue in the printing device, to a residual print queue designation, wherein the residual print queue designation corresponds to the residual print queue** (the print jobs that are forwarded to the history queue of Bain must have their original queue name designation converted to the history name in order to correctly route and forward the print job to the history queue).

Regarding claims 4 and 5, which depend from claim 3, the recognizing claim 4 and the determining and comparing of claim 5 are completed by the methods of the combination spooler

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of Bain (col. 15 lines 45-54). The spooler handles the comparisons of print job properties including the selected queue, which in this case would have been converted by the method in claim 3. Bain teaches that routing to queues is done by comparing queue names (Q1, Q2, history queue etc.) and then forwarding, and thus includes these method steps.

Regarding claim 6, which depends from claim 1, Bain further teaches **determining whether the print jobs identify print queue designations that do not match a named print queue** (col. 15 lines 45-54).

Regarding claim 7, which depends from claim 6, Bain teaches **determining whether the print jobs identify print queue designations that do not match a named print queue comprises comparing a queue name field in a corresponding print job command to each of the print queue designations corresponding to the named print queues** (destination queue name [col. 4 line 56, col. 6 line 59], and throughout is a discussion of the named queues, even letting the user rename them [col. 5 lines 51-52], see step 80 which actually does the comparison to check the queue name designated with the actual named queues).

Regarding claim 12, which depends from claim 1, Bain teaches **transmitting the print jobs from a client computer system to the printing device** (print jobs received from host [client] 15 to personal computer 14, col. 3 lines 46-48; col. 5 line 8, Fig. 1).

Regarding claim 13, which depends from claim 12, Bain teaches **at least the client computer system and the printing device are configured in a network** (Fig. 1).

Regarding claim 14, which depends from claim 1, Bain teaches **forwarding print jobs to the residual print queue comprises transmitting the print jobs as part of a print command, wherein the print command includes a queue name field to identify the print queue**

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**designation** (destination queue name [col. 4 line 56, col. 6 line 59], and throughout is a discussion of the print command including a queue designation, even letting the user rename them [col. 5 lines 51-52]).

Regarding claim 18, Bain teaches a **print server** (14, Fig. 1) **for processing print jobs, wherein the print server includes one or more print queues each preassigned a print queue name (Q1, Q2), the print server comprising:**

**a residual print queue (history queue) that does not correspond to any of the preassigned print queue names** (history queue, col. 7 lines 60-65, col. 15 lines 45-54);

**means for receiving an incoming print job command** (job spooler 28, print jobs received from host 15 to personal computer 14, col. 3 lines 46-48; col. 5 line 8), **wherein the incoming print job command includes a target queue name** (col. 4 line 56 and further throughout);

**means for determining whether the target queue name associated with each of the incoming print job commands conforms to one of the preassigned print queue names** (spooler, step 80 and its discussion, and col. 15 lines 45-54);

**means for directing the print jobs whose target queue name conforms to one of the preassigned print queue names to its respective print queue** (step 92 and its discussion);

**means for directing the print jobs whose target queue name does not conform to one of the preassigned print queue names to the residual print queue** (col. 15 lines 45-54);

**means for forwarding the print jobs in the print queues and the residual print queue to a print engine for printing** (col. 8 lines 40-60, wherein jobs in the history queue can

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be re-submitted to the system and forwarded from the history queue to another queue and thus to a print engine [e.g. printers of Fig. 1] for printing).

Even though it seems obvious that a job can be restored from the history queue for printing, thus allowing old jobs, jobs that had been canceled, jobs that didn't have a correct queue name, as well as other examples of items going into the history queue, to be printed. This seems to be one of the clear functions of the restore routine. Nevertheless, since Bain does not specifically (only suggests) teach restoring jobs and being able to print jobs from the history queue, Ota is relied upon to show in exact detail that it is well known in the art to be able to restore and print jobs in a history queue.

Ota teaches the ability to forward print jobs from a history queue to a print engine (see abstract and throughout).

It would have been obvious to one of ordinary skill in the art that a user would have the ability to print jobs in a history queue as clearly taught in Ota and suggested in Bain. The motivations for doing so are discussed above and include the basic idea of being able to print things that weren't able to print the first time or reprint things again.

Regarding claim 20, Bain teaches **a computer-readable program storage medium tangibly embodying a program of instructions executable by a print server system to process print jobs by performing steps** (Fig. 1 shows that spooler is stored in memory 20 and is a executable program by MPU) **comprising:**

**assigning print queue names to each of the one or more print queues of the print server system** (destination queue name [col. 4 line 56, col. 6 line 59], and throughout is a discussion of the named queues, even letting the user rename them [col. 5 lines 51-52]);



**defining a residual print queue in addition to the one or more print queues** (a history queue is defined, col. 7 lines 60-65, col. 15 lines 45-54);

**forwarding print jobs, that identify destination print queue names that are not among the assigned print queue names of the one or more print queues, to the residual print queue** (col. 15 lines 45-54, wherein jobs that have no corresponding queue name are posted to the history queue); **and**

**forwarding one or more of the print jobs stored in the residual print queue to a print engine** (printers of Fig. 1) **for printing** (col. 8 lines 40-60, wherein jobs in the history queue can be re-submitted to the system and forwarded from the history queue to another queue and thus to a print engine [e.g. printers of Fig. 1] for printing).

Even though it seems obvious that a job can be restored from the history queue for printing, thus allowing old jobs, jobs that had been canceled, jobs that didn't have a correct queue name, as well as other examples of items going into the history queue, to be printed. This seems to be one of the clear functions of the restore routine. Nevertheless, since Bain does not specifically (only suggests) teach restoring jobs and being able to print jobs from the history queue, Ota is relied upon to show in exact detail that it is well known in the art to be able to restore and print jobs in a history queue.

Ota teaches the ability to forward print jobs from a history queue to a print engine (see abstract and throughout).

It would have been obvious to one of ordinary skill in the art that a user would have the ability to print jobs in a history queue as clearly taught in Ota and suggested in Bain. The

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motivations for doing so are discussed above and include the basic idea of being able to print things that weren't able to print the first time or reprint things again.

Regarding claim 21, which depends from claim 20, the method steps of method claim 3 are the same as the program steps of claim 21. Bain thus teaches the steps of 3 and 21 as part of the spooler as discussed in the rejection to claim 3.

Regarding claim 22, which depends from claim 20, Bain teaches **determining whether the print jobs identify destination print queue names that are not among the assigned print queue names** (col. 15 lines 45-54).

Regarding claim 24, Bain teaches a **computer network (Fig. 1) for facilitating the processing of print jobs from a plurality of client computer systems by at least one server computer system (14, Fig. 1), comprising:**

**a client job control module** (inherent in the ability to create and send the jobs is such a module), **at each client computer system (15), to generate print job commands for printing corresponding print jobs** (col. 3 lines 45-47, wherein the host computer 15 [client] can send jobs with commands to the server 14), **wherein each of the print job commands includes a destination print queue name** (col. 4 line 56);

**transmission media** (connection noted in double arrow between 14 and 15) **coupled between each of the client computer systems and the server computer system to transmit the print jobs from the client computer systems to the server computer system** (arrow signifies connection for communications, including the print jobs);

**a plurality of print queues** (in spooler 26, Q1, Q2 etc.), **at the server computer system** (spooler in server 14), **wherein each of the plurality of print queues is assigned a**

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**predetermined print queue name** (destination queue name [col. 4 line 56, col. 6 line 59], and throughout is a discussion of the named queues, even letting the user rename them [col. 5 lines 51-52]);

**a residual print queue** (history queue, col. 7 lines 60-65, col. 15 lines 45-54) **at the server computer system** (in spooler, col. 15 lines 45-54);

**a server job control module** (spooler 26), **at the server computer system** (26 in 14), **to receive the print job commands transmitted via the transmission media** (col. 3 lines 45-47), **and to store the print jobs in one of the plurality of print queues** (step 90 and discussion), **wherein the server job control module comprises:**

**a compare module** (described in comparisons of step 80 and discussion as well as col. 15 lines 45-54) **configured and arranged to compare the destination print queue names to the predetermined print queue names, and to provide a undefined queue name identifier if the destination print queue names do not correspond to any of the predetermined print queue names** (col. 15 lines 45-54, wherein if they destination print queue name does not correspond to a current named queue, the job is identified as for the history queue);

**a queue name resolution module** (described in col. 15 lines 45-54, wherein if a job is designated for the history queue based on the comparisons, the job is posted to said history queue) **coupled to receive the undefined queue name identifier, and to direct the print jobs having the destination print queue names that do not correspond to any of the predetermined print queue names to the residual print queue upon receipt of the undefined queue name identifier** (actual posting of the job to the history queue); **and**

**a print engine (printers of Fig. 1) coupled to the server computer system to receive one or more of the print jobs in the residual print queue** (col. 8 lines 40-60, wherein jobs in the history queue can be re-submitted to the system and forwarded from the history queue to another queue and thus to a print engine [e.g. printers of Fig. 1] for printing).

Even though it seems obvious that a job can be restored from the history queue for printing, thus allowing old jobs, jobs that had been canceled, jobs that didn't have a correct queue name, as well as other examples of items going into the history queue, to be printed. This seems to be one of the clear functions of the restore routine. Nevertheless, since Bain does not specifically (only suggests) teach restoring jobs and being able to print jobs from the history queue, Ota is relied upon to show in exact detail that it is well known in the art to be able to restore and print jobs in a history queue.

Ota teaches the ability to forward print jobs from a history queue to a print engine (see abstract and throughout).

It would have been obvious to one of ordinary skill in the art that a user would have the ability to print jobs in a history queue as clearly taught in Ota and suggested in Bain. The motivations for doing so are discussed above and include the basic idea of being able to print things that weren't able to print the first time or reprint things again.

Regarding claim 25, Bain teaches all of the method steps of method claim 25 as discussed in the rejection of claim 20 (assigning, defining, forwarding, forwarding).

Regarding claim 26, which depends from claim 25, Bain teaches **forwarding second print jobs, that identify destination print queue names that correspond to one of the assigned print queue names, to its corresponding print queue of the printing device** (step 92

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and its discussion); and printing one or more of the print jobs stored in the print queues having the assigned print queue names (e.g. col. 5 lines 23-24 and throughout).

Regarding claim 27, which depends from claim 25, Bain teaches all of the method steps of method claim 25 as discussed in the rejection of claim 21 (defining, converting).

Regarding claims 15 – 17, the printers (Fig. 1, 10-13 – or just one printer because multiple queues can be for one printer in Bain) and the print server (14, Fig. 1) of Bain can be combined into and/or thought of as one printer device as broadly recited from claim 15. The limitations of said printer are met in the rejection of apparatus claim 24.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bain and Ota as applied to claims 1 and 7 above, and further in view of McLaughlin (RFC 1179).

Regarding claim 8, which depends from claim 7, the combination of Bain and Ota does not teach the use of the Line Printer Daemon (LPD) Protocol as a specific protocol to send the print jobs in such a printing system.

McLaughlin teaches using the LPD Protocol as a common and effective way to send print jobs with a queue name field, as shown in McLaughlin section 5 and further.

It would have been obvious to a person of ordinary skill in the art to create a standard method of transferring print jobs in the Bain and Ota system in accordance with the LPD Protocol. The motivation for doing so would have been to adapt a specific, proven, and industry standard way of preparing and using print jobs throughout said system.

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5. Claims 9 – 11, 23, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bain and Ota as applied to claims 1, 12, 20, and 25 above, and further in view of Hower, Jr. et al (US 5467434).

Regarding claims 9 – 11, 23, 28, and 29, which depend from claims 1, 12, 20, and 25, Bain teaches one format editor 22 that does all of the formatting of the jobs for printers in the system.

Bain does not thus does not specifically teach filters to prepare print data for each queue.

However, Hower teaches that each print queue is mapped to a printer profile (Fig. 2 ref. no. 44, column 4 line 31). These profiles will hereafter be referred to as filters because they along with the server processor (ref. no. 50) act as filters, converting the print job data into the specific data needed for the printers. By adding the print preparation methods of Hower to Bain and Ota, the history queue would also have a specific filter associated with it in order to convert the data in the history queue for printing since each queue is associated with a filter directly. Further, Hower teaches that each one of the one or more filters corresponding to named queue designations is associated with a different one of the print queues (Fig. 2 ref. no. 43, col. 4 line 39, wherein each queue is mapped to a different specific filter in a one-to-one relationship). Various mapping arrangements other than one-to-one can be used with Hower's invention which satisfies the limitation set forth in claim 10 of 'one or more filters' (col. 4, line 40).

It would have been obvious to provide individual printer profiles for formatting print data for each queue as done in Hower to the system of Bain and Ota. The motivation for doing so would have been to speed up the printing process by doing parallel processing of print jobs instead of one format editor trying to format them all for different printers. Further, Bain already

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teaches mapping a queue to a specific printer, thus adding the printer profile for that printer would have been obvious. Another motivations is to free up the processor of the server to do other things.

***Response to Arguments***

6. Applicant's arguments and amendments, see page 9, filed 9/26/05, with respect to § 112 (1) rejection have been fully considered and are persuasive. The § 112 (1) rejection of claims 1, 15, 18, 20, 24, and 25 has been withdrawn.

7. Applicant's arguments with respect to claims 1 – 7 and 9 – 29 have been considered but are moot in view of the new ground(s) of rejection. The Yellepeddy reference is no longer relied upon due to locating better prior art and was the specific reference refuted. Hower is maintained specifically to teach the filtering claims, to which applicant has put forth no argument of which to respond.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US-6108689, Fagen et al. teaches method and system for processing messages in a distributed environment.

A handwritten signature in black ink, appearing to read 'K. Y. Poon', with a stylized, cursive script.

**KING Y. POON  
PRIMARY EXAMINER**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 571-272-7432. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucas Divine  
Examiner  
Art Unit 2624

ljd

  
**KING Y. POON**  
**PRIMARY EXAMINER**